REMARKS

This amendment is submitted in response to Examiner's Final Action and pursuant to a telephone conference with Examiner on October 7, 2005. During the brief conference, Examiner acknowledged that the Amendment provided herein was acceptable to overcome the § 112 rejection. As further stated to Examiner during that conference, Applicant has further amended the claims by incorporating features of dependent claims (now canceled) into their respective independent claims. No new matter has been added, and the various amendments serve to overcome rejections and place the claims in better condition for allowance and/or appeal. Applicant respectfully requests entry of the amendments. The arguments proffered below all reference the claims in their present amended form.

CLAIMS REJECTIONS UNDER 35 U.S.C. § 112

In the present Office Action, Claims 2, 9 and 16 are rejected under 35 U.S.C. §112, second paragraph. Specifically, Examiner objects to the use of the term "lightweight" to describe the probes. While Applicant believes that term to be clearly defined within the specification (*see*, for example, page 8, lines 16-21, which states: "[p]robes ...are "lightweight" in that the burden on the system being probed is the minimal required use of resources necessary to obtain information regarding system performance;..."), Applicant has nonetheless amended the claims by removing all references to the term lightweight contained therein. The amendment overcomes the §112 rejection, and Applicant therefore respectfully requests removal of the §112 rejection of these claims.

CLAIMS REJECTIONS UNDER 35 U.S.C. §103

In the present Office Action, Claims 1-3, 6-11, 13-17 and 20-26 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Gilbert, et al.* (U.S. Patent No. 5,666,534) in view of *de la Salle* (U.S. Patent No. 5,878,402). The combination of *Gilbert* and *de la Salle* does not render Applicant's claimed invention obvious because that combination fails to suggest to one skilled in the art several key features recited by Applicant's claims.

At the onset, Applicant respectfully requests Examiner consider the arguments provided herein, since these arguments are different from those previously provided, despite the similar

grounds of rejections. Applicant hereby incorporates by reference those arguments proffered in Amendment B. Several of those arguments are expanded upon herein, particularly those related to the independent claims, which now recite additional features incorporated from dependent claims (now canceled). Sub-headings are provided to delineate and/or differentiate the particular arguments associated with the specific features identified.

Invention Summary

Applicant's invention provides a server cluster (having a plurality of servers) within a computer network that includes a designated management server, where the individual servers of the cluster each have a plurality of "levels" and a corresponding plurality of software "probes" at each of the different levels of the server. Each probe gathers management information from a specific level (of the multiple levels) of the particular server. The gathered information from the plurality of servers is then forwarded to the designated management server, which aggregates the information from similar levels of the plurality of servers. For example, information from all the individual OS levels across the plurality of servers is aggregated together. Once the information for each of the levels has been aggregated, then the aggregated information for the various levels are combined to provide a single management image of the cluster.

Some of the key distinguishing features of Applicant's invention include: (1) the information is collected from within each server (i.e., via internal server-level probes and NOT external network level probes); (2) there are multiple probes within each server, each probe at different "levels" of the server; and (3) the information collected is aggregated at each individual level before the levels are combined to provide the management image.

References

Examiner relies on the combination of *Gilbert* and *de la Salle*, neither of which teaches nor suggests any one of these key features (or other features provided by Applicant's claims). Having read the references, Applicant finds no motivation within either reference (even considering the level of knowledge existing at the time of Applicant's invention) to support an assertion that such a combination would even be contemplated absent the teachings of Applicant's specification and claims.

Gilbert generally provides "a remote service facility (RSF) unit that is integrated into the operating system of the host system ...," and "which utilizes a standard generic menu interface system (GMIS) unit through which a user can enter different types of commands ... for configuring how the different independently controllable components of the RSF unit will operate...in performing remote support functions" (Abstract, and Summary; *see also* col. 2, line 40-43, describing management customization of the remote support system to meet user requirements for controlling how remote support is to be performed on a host system).

Further, the cited sections of *Gilbert* indicate that *Gilbert* primarily teaches a single, local, internalized/integrated component utilized to control access to remote support when an "overthreshold condition occurs" (*see* col. 3, lines 10-18). Col. 4, lines 39-50 of *Gilbert* describes localized functionality and response mechanism to over-threshold conditions. Notably, lines 40-51 then describe a **callout action to a response center**, and providing "a comprehensive list of response center phone numbers to be tried in sequence until a successful connection is made." As illustrated by Figure 1, the call out is completed via a modem through a **physical (PSTN) connected telephone call** (see col. 4, lines 45-65).

De la Salle generally describes a network management system that includes "**probe computers** (42) situated along selected ones of the LANs (14) or 'capturing' data packets(22) and building probe objects (52) corresponding thereto" (Abstract; Summary). The cited sections of *de la Salle*, namely col. 3, line 41-67 and col 4. line 12-16 provide a description of the probe units being placed to gather geographically distinct information from sample data packets ... later used to build probe objects that are sent to an "analysis assembly." More specifically, *de la Salle* provides "a plurality of probe units distributed throughout a network ... probe units being situated on different branches of the overall network array such that 'geographically' distinct information is gathered" (col. 3, lines 42-48). As clearly shown by the figures (e.g., Fig. 1) the probe computers are actual computer systems/devices separate from (i.e., external to) the workstations and other devices on the network that generate the data packets etc. being analyzed.

Legal Analysis

In rejecting claims under 35 U.S.C. §103, it is incumbent upon Examiner to establish a

factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. i, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior, art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed- Cir. 1985,); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984).

General Arguments

Examiner fails to provide any correlation/link between (a) *Gilbert's* RSF connected to control remote components that call the RSF via a PSTN network when an over threshold condition occurs within that component and (b) *de la Salle's* computer-network monitoring system that has network-level probes monitoring data flow and similar network-level information. Even considering Applicant's claimed invention, one skilled in the art would probably not have been motivated to combine these two references, which do not themselves suggest such a combination.

Further, even if motivation could have been found for the combination, the combination still would not have suggested many of the features recited by Applicant's claims.

With respect to *Gilbert*, clearly, the type of connection required for a PSTN-enabled call is very different from communication via computer network, which transmits information via packets or other network-protocol data type using network IDs and IP addresses. Also, the response center being referenced by *Gilbert* is clearly not synonymous with nor suggestive of a centralized network management server at which management information is received via a computer network from multiple servers across the cluster. Finally, as acknowledge by Examiner, *Gilbert* does not teach or suggest use of multiple probes, each associated with

different levels within the servers. This failure of *Gilbert*, acknowledged by Examiner, also indicates *Gilbert* cannot suggest aggregating management information from each of the single levels across multiple servers.

Gilbert, therefore, focuses primarily on the single host system managing its own operations, and *Gilbert* is completely devoid of any reference to (or suggestion of) use of probes at various levels on servers, or a centralized computer network management server for a server cluster, or combining the same levels of management information across multiple servers.

De la Sale is cited to support the rejection of multiple probes, which Examiner acknowledges is not found within *Gilbert*. However, *de la Salle* clearly does not teach multiple software level probes existing within multiple different levels of each server of the computer network. Single, hardware probes at different geographic locations throughout the network and external to the servers are not suggestive of Applicant's software probes, the functionality associated therewith, or utilization thereof to track levels of management information within individual servers. Thus, nowhere within *de la Salle* is there any reference to or suggestion of the multiple (internal/server-level) probes at various levels of each server, and Examiner's reliance on *de la Salle* to support the rejection of this and other features of Applicant's claims in misplaced.

Specific Claim Elements:

A. Probes at multiple levels of each server

Applicant describes the "probes" and their specific use at page 8, lines 12-27, which states that:

> *Probes ...are utilized by both the information-gathering and command and control mechanisms. Although uniform across systems of the same type at each level, the specific implementation details of probes ... will vary greatly from level to level and from one system type to another.*

Additionally, page 9, lines 2-9 further states:

> *each probe ... only gathers information regarding the particular system on which the respective probe is located, and only for the specific level 108a-108d on which*

the respective probe was designed to operate. The task of aggregating collected information is performed on the meta server 106.

Gilbert does not suggest a plurality of probes at a single server/device, as is clearly recited by Applicant's claims. Examiner summarizes that in order for *Gilbert* "[t]o properly perform such tasks, means by which to obtain data ... (such as probes) must exist within any network monitoring design." Examiner however provides no support for this statement and appears to have mischaracterized what is provided by *Gilbert* in order to reach that conclusion. For example, col. 2, lines 49-59 of *Gilbert* does not teach "a design for monitoring machines within a network." Rather, that section of *Gilbert* describes the RSF unit with a GMIS unit (interface) through which "a user can enter different types of commands ...for configuring how the different independently controllable components of the RSF unit will operate in performing remote support functions". *Gilbert's* RSF unit is not synonymous with nor suggestive of a network management scheme for monitoring and/or managing multiple servers, where each server has multiple levels with probes provided at each level for level-specific information-gathering and later dispersing of command/control functions. Notably, Examiner later admits that "Gilbert's disclosure does not discuss the use of multiple probes, whose information is compiled."

As previously stated, *de la Salle* also does not teach or suggest multiple probes that are each provided at one of multiple levels within each server, as provided by Applicant's claims. Rather, *de la Salle* describes a "probe computer," which is a complete computer system (external to the servers) that is set up to monitor a geographical area of a network.

As utilized within Applicant's claims, the term "probes" provide a different construct than the "probe computer" described in *de la Salle*. Applicant's use of multiple server-level probes in a single server is therefore not suggested by either reference, and Applicant's independent claims are therefore allowable over the combination of references.

B. Plurality of levels at each server

Examiner provides several conclusory arguments throughout the Office Action to support the rejection of the multiple levels being monitored within a single server by individual probes.

For example, one section of *Gilbert* referenced, namely col. 9, lines 65-67 expressly states: "[t]he class field indicates whether the error is a hardware (H) or software (S) error ... provides a description of the error condition."

Examiner also relies on a statement that OS-level monitoring is inherent for a network monitoring design to function. However, Examiner later appears to "contradict" this statement by relying on *de la Salle*, which provides high level network monitoring without any suggestion of detecting OS-level information for each remote device. *De la Salle* is described above as providing a network management system that includes probe computers geographically situated on a LAN for capturing data packets and building probe objects from the captured data packets. Nothing in the description of *de la Salle* suggests OS-level monitoring or an application server level monitoring, etc. Absent some specific teaching or more definite reasoning by Examiner, Applicant asserts that the combination of references would not suggest monitoring each server at a plurality of levels (via probes placed within each level).

C. Aggregation of levels across multiple servers

Examiner fails to provide a teaching within *Gilbert* that is suggestive of or synonymous with the receiving and aggregating management information from multiple servers on a level by level basis, as provided by Applicant's claims. One skilled in the art would appreciate the inherent differences between monitoring remote access to a system (as provided by *Gilbert*) and actually receiving management information form a plurality of remote systems that are being managed from a centralized management server (as provided by Applicant's claims). One skilled in the art would also appreciate that a level-by-level aggregation of information received from a plurality of servers is a unique and novel way of aggregating management information received from multiple servers. Neither of the references or combination thereof suggests (nor contemplates) aggregating management information at each of the plurality of levels across multiple servers.

Also, the reference at col. 9, line 30-31 of a single record is NOT equivalent to the claimed image, as stated by Examiner, because that section states: "it contains one record for each source (log file) being monitored by RSF unit." This clearly indicates that, assuming

arguendo, that *Gilbert* did teach a network system with multiple probes (and Applicant maintains that *Gilbert* does not), then *Gilbert's* system would result in as many records as there are servers rather than a single record representing the compilation of data from all the servers across the various levels. Applicant's claims area therefore allowable over the combination.

D. Command Dissemination via Sub-division into server levels

Examiner fails to specifically address the actual subdividing of a centralized command issued from the management server to provide control at specific ones of the various levels across various servers. Notably, this feature of Applicant's claimed invention provides a different functional use of the probes as disseminators of control/management commands, which are generated based on analysis of the compiled data from each probe at each of the various levels of each server. Inexplicably, Examiner's analysis of these claim elements does not actually address the claim elements. Examiner merely states that "the design allows for a user to use the collected information to manage and tune the network" citing to col. 4, lines 12-16 of *de la Salle*. This however, does not suggest a division and broadcast of control information to various levels within the individual servers using a single command that is then subdivided by levels and then by servers to provide a level-directed control output. Nothing within either reference (or the combination thereof) suggests a command that is specifically created and which is then divided up to the individual levels then servers and transmitted to the respective level of the respective servers to effect some change thereto. Thus, the claims are allowable over the combination.

Conclusion

The above arguments establish that neither *Gilbert* nor the combination of *Gilbert* with *de la Salle* suggests several claimed features of Applicant's claims. The combination does not suggest collecting management information from various levels of each of multiple servers within a cluster. The combination also does not suggest use of multiple probes within each server (assigned to each level), and other features recited by Applicant's claims. Given the above reasons, it is clear that the combination of references does not render Applicant's claims unpatentable since (a) the combination fails to suggest key features of Applicants' invention and

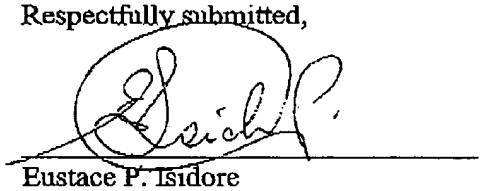
(b) one skilled in the art would not find the invention obvious over the combination. Applicant's claims are therefore allowable over the combination.

CONCLUSION

Applicant has diligently responded to the Office Action by (1) amending the claims to overcome the §112 rejections pursuant to Examiner's request, and (2) incorporating features of dependent claims (now canceled) into their respective independent claims to reduce issues for appeal. The amendments and supporting arguments overcome the §112 and § 103 rejections, and Applicant, therefore, respectfully requests reconsideration of the rejections and issuance of a Notice of Allowance for all claims now pending.

Applicant further requests the Examiner contact the undersigned attorney of record at 512.343.6116 if such would further or expedite the prosecution of the present Application.

Respectfully submitted,



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